



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE						ATTY. DOCKET NO. <b>MASIMO.056A</b>	APPLICATION NO. <b>08/834,194</b>
INFORMATION DISCLOSURE STATEMENT BY APPLICANT						APPLICANT <b>Mohamed K. Diab, et al.</b>	
(USE SEVERAL SHEETS IF NECESSARY)						FILING DATE <b>April 14, 1997</b>	GROUP <b>Unknown</b>

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
EP		R e 3 5 1 2 2	12/19/95	Corenman et al.			
BT		3 6 4 7 2 9 9	03/07/72	Lavallee			
GR		3 7 0 4 7 0 6	12/05/72	Herczfeld et al.			
SR		4 0 6 3 5 5 1	12/20/77	Sweeney			
SL		4 0 8 6 9 1 5	05/02/78	Kofsky et al.	1		05/02/78
GR		4 0 9 5 1 1 7	06/13/78	Nagy	1		06/13/78
BT		4 1 2 9 1 2 4	12/12/78	Thalmann			12/12/78
GR		4 3 0 8 4 5 6	12/29/81	Van Der Gaag et al.	1		12/29/81
BT		4 4 0 7 2 9 0	10/04/83	Wilber			10/04/83
GR		4 5 3 7 2 0 0	08/27/85	Widrow			08/27/85

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES      NO
SL		0 1 0 2 8 1 6	03/14/84	Europe			
GR		0 3 2 9 1 9 6	08/23/89	Europe			
BT		W O 9 4 0 9 6 9 8	05/11/94	PCT			
GR		E P 0 7 4 3 0 4 2	11/20/96	Europe			
BT		E P 0 7 4 4 1 5 4	11/27/96	Europe			

## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

<i>SL</i>	A. ✓	Widrow, Bernard et al., Chapter 2: "The Adaptive Linear Combiner", Adaptive Signal Processing, Prentice-Hall, Inc., pp. 15-26, 1985.
<i>SL</i>	B. ✓	Widrow, Bernard et al., Chapter 12: "Adaptive Interference Canceling", Adaptive Signal Processing, Prentice-Hall, Inc., pp. 302-367, 1985.
<i>SL</i>	C. ✓	Tremper, Kevin K. et al., "Pulse Oximetry: Technical Aspects of Machine Design" by Jonas A. Pologe, Advances in Oxygen Monitoring, Little, Brown and Company, 1987, pp. 137-153.

EXAMINER

DATE CONSIDERED

6/8/58



SHEET 2 OF 5

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE					ATTY. DOCKET NO.	APPLICATION NO.	
					MASIMO.056A	08/834,194	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					APPLICANT		
(USE SEVERAL SHEETS IF NECESSARY)					Mohamed K. Diab, et al.		
					FILING DATE	GROUP	
					April 14, 1997	Unknown	

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>EW</i>		4 6 4 9 5 0 5	03/10/87	Zinser, Jr. et al.			
<i>EW</i>		4 6 6 0 1 5 1	04/21/87	Chipman et al.			
<i>EW</i>		4 7 7 3 4 2 2	09/27/88	Isaacson et al.			
<i>EW</i>		4 7 9 3 3 6 1	12/27/88	DuFault			DC 10/20/88
<i>EW</i>		4 7 9 9 4 9 3	01/24/89	DuFault			02/20/89
<i>EW</i>		4 8 0 0 4 9 5	01/24/89	Smith			02/20/89
<i>EW</i>		4 8 0 2 4 8 6	02/07/89	Goodman et al.			02/20/89
<i>EW</i>		4 8 2 4 2 4 2	04/25/89	Frick et al.			
<i>EW</i>		4 8 4 6 1 8 3	07/11/89	Martin			
<i>EW</i>		4 8 4 8 9 0 1	07/18/89	Hood, Jr.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

<i>EW</i>	<input checked="" type="checkbox"/>	Klimasauskas, Casey, "Neural Nets and Noise Filtering" Article, Dr. Dobb's Journal, January 1989, pp. 32-34, 36-38, 42, 47, 49, 96, 98, 100.
<i>EW</i>	<input checked="" type="checkbox"/>	Neuman, Michael R., "Pulse Oximetry: Physical Principles, Technical Realization and Present Limitations", <u>Continuous Transcutaneous Monitoring</u> , Plenum Press, New York, 1987, pp. 135-144.
<i>EW</i>	<input checked="" type="checkbox"/>	Severinghaus, John W. M.D., "Pulse Oximetry Uses and Limitations", ASA Convention 1989, New Orleans.

EXAMINER

*EW*

DATE CONSIDERED

6/8/98

\*EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.



SHEET 3 OF 5

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

ATTY. DOCKET NO.

MASIMO.056A

APPLICATION NO.

08/834,194

APPLICANT

Mohamed K. Diab, et al.

FILING DATE

April 14, 1997

GROUP

Unknown

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
L		4 8 5 4 6 9 9	08/08/89	Edgar, Jr.			
T		4 8 5 9 0 5 7	08/22/89	Taylor et al.			
T		4 8 6 0 7 5 9	08/29/89	Kahn et al.			
E		4 8 6 3 2 6 5	09/05/89	Flower et al.			01/09/90
E		4 8 6 7 5 7 1	09/19/89	Frick et al.			01/22/90
G		4 8 6 9 2 5 3	09/26/89	Craig, Jr. et al.			08/26/90
T		4 8 6 9 2 5 4	09/26/89	Stone et al.			09/26/90
S		4 8 8 3 3 5 3	11/28/89	Hausman et al.			
S		4 8 9 2 1 0 1	01/09/90	Cheung et al.			
S		4 9 0 7 5 9 4	03/13/90	Muz			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO

## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

G.	/	Cohen, Arnon Ph.D., "Volume I: Time and Frequency Domains Analysis", <u>Biomedical Signal Processing</u> , CRC Press, Inc., pp. 152-159.					
H.	/	Harris, Fred et al., "Digital Signal Processing With Efficient Polyphase Recursive All-Pass Filters" Article, Presented at International Conference on Signal Processing Florence, Italy, Sept. 4-6, 1991:					
I.	/	Rabiner, Lawrence R. et al., "Theory and Approximation of Infinite Impulse Response Digital Filters", Prentice Hall Inc., Englewood Cliffs, NJ, 1975, p. 260.					

EXAMINER

EL

DATE CONSIDERED

6/8/98

\*EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.



23 199

18

SHEET 4 OF 5

PATENT & TRADEMARK OFFICE		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				ATTY. DOCKET NO.		APPLICATION NO.		
						MASIMO.056A		08/834,194		
		INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICANT				
		(USE SEVERAL SHEETS IF NECESSARY)				Mohamed K. Diab, et al.				
						FILING DATE		GROUP		
						April 14, 1997		Unknown		
U.S. PATENT DOCUMENTS										
EXAMINER INITIAL		DOCUMENT NUMBER			DATE	NAME		CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>L</i>		4	9	1	1	1	6	7	03/27/90	Corenman et al.
<i>L</i>		4	9	2	7	2	6	4	05/22/90	Shiga et al.
<i>L</i>		4	9	2	8	6	9	2	05/29/90	Goodman et al.
<i>L</i>		4	9	3	4	3	7	2	06/19/90	Corenman et al.
<i>L</i>		4	9	4	8	2	4	8	08/14/90	Lehman
<i>L</i>		4	9	5	5	3	7	9	09/11/90	Hall
<i>L</i>		4	9	5	6	8	6	7	09/11/90	Zurek et al.
<i>L</i>		5	0	0	3	9	7	7	04/02/91	Suzuki et al.
<i>L</i>		5	0	5	7	6	9	5	10/15/91	Hirao et al.
<i>L</i>		5	1	9	0	0	4	7	03/02/93	Odagiri et al.
FOREIGN PATENT DOCUMENTS										
		DOCUMENT NUMBER			DATE	COUNTRY		CLASS	SUBCLASS	TRANSLATION
										YES
										NO
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)										
<i>J.</i>		Mook, G.A. et al., "Spectrophotometric determination of oxygen saturation of blood independent of the presence of indocyanine green", <u>Cardiovascular Research</u> , Volume 13, 1979, pp. 233-237.								
<i>K.</i>		Melnikof, Steve, "Neural Networks for Signal Processing: A Case Study" Article, <u>Dr. Dobb's Journal</u> , January 1989, pp. 36-37.								
<i>L.</i>		Mook, G.A. et al., "Wavelength dependency of the spectrophotometric determination of blood oxygen saturation", <u>Clinical Chemistry Acta</u> , Volume 26, 1969, pp. 170-173.								
EXAMINER	<i>EL</i>					DATE CONSIDERED		<i>6/8/98</i>		



FORM 1012-34-1000

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

SHEET 5 OF 5

INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

ATTY. DOCKET NO.

MASIMO.056A

APPLICATION NO.

08/834,194

APPLICANT

Mohamed K. Diab, et al.

FILING DATE

April 14, 1997

GROUP

Unknown

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
L		5 2 7 3 0 3 6	12/28/93	Kronberg et al.			
E		5 2 9 7 5 4 8	03/29/94	Pologe			
S		5 3 0 8 9 1 9	05/03/94	Minnich			
Z		5 3 9 8 6 8 0	03/21/95	Polson et al.			RECEIVED OCT 28 1997
Z		5 4 5 0 1 2 8	10/17/95	Polanyi et al.			RECEIVED OCT 28 1997
S		5 4 9 0 5 0 5	02/13/96	Diab et al.			RECEIVED OCT 28 1997
R		5 5 1 5 1 6 9	05/07/96	Cargill et al.			RECEIVED OCT 28 1997
S		5 5 8 8 4 2 7	12/31/96	Tien			
S		5 6 3 2 2 7 2	05/27/97	Diab et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES      NO

## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

L	M. C	Brown, David P., "Evaluation of Pulse Oximeters using Theoretical Models and Experimental Studies" Masters Thesis, University of Washington, 1987.
X	X	Haykin, Simon, <u>Adaptive Filter Theory</u> , Prentice Hall, Englewood Cliffs, NJ, 1985.
X	X	Widrow, Bernard, <u>Adaptive Signal Processing</u> , Prentice Hall, Englewood Cliffs, NJ, 1985.

EXAMINER

E C

DATE CONSIDERED

4/8/98

\*EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.